

WHAT IS CLAIMED IS:

1. A television system wherein a target region in successive video images is replaced with a matching pattern adapted to be inserted into said target region, said system comprising:

at least one television camera for producing a sequence of video images of a scene (clean feed);

a control room located on-site with said at least one camera and including broadcast image processing means for receiving said clean feed and for adding layers of graphics to said clean feed to produce corresponding video images (dirty feed) and means for outputting said dirty feed in digital form; and

virtual insertion means, located off-site from said at least one camera, for receiving said dirty feed and for modifying said dirty feed by replacing selected portions of said target region of said video images in said dirty feed with a replacement pattern adapted to be inserted into said target region, said selected portions being only those portions of said target region that are not modified with said added layers of graphics.

2. A television system as in claim 1, wherein said mobile control room further outputs said clean feed to said virtual insertion means and said virtual insertion means compares said clean feed and said dirty feed and replaces only those portions of said target region that appear both in said dirty feed and said clean feed with said replacement pattern.

3. A television system as in claim 1, wherein said mobile control room further outputs data identifying the location of said added graphics and said virtual insertion means replaces only those portions of said target region that have not been modified by said added graphics.

4. A television system as in claim 1, wherein said target region in said video images is in a chroma key color and said added graphics are in a different color and said virtual insertion means replaces only those portions of said target region in said dirty feed that are in said chroma key color.

5. In a television system, a method for replacing a target region in successive video images with a matching pattern adapted to be inserted into said target region, said method comprising:

producing a sequence of video images of a scene (clean feed) from at least one television camera;

receiving said clean feed in a control room located on-site with said at least one camera;

adding layers of graphics to said clean feed to produce corresponding video images (dirty feed);

outputting said dirty feed in digital form; and

receiving said dirty feed in a virtual insertion means, locate off-site from said at least one camera, and modifying said dirty feed by replacing selected portions of said target region of said video images in said dirty feed with a replacement pattern adapted to be inserted into said target region, said selected portions being only those portions of said target region that are not modified with said added layers of graphics.

6. A method as in claim 5, further comprising outputting said clean feed to said virtual insertion means, comparing said clean feed and said dirty feed, and replacing only those portions of said target region that appear both in said dirty feed and said clean feed with said replacement pattern.

7. A method as in claim 5, further comprising outputting data identifying the location of said added graphics from said control room and replacing only those portions of said target region that have not been modified by adding said graphics.

8. A method as in claim 5, further comprising providing said target region in said video images in a chroma key color and said added graphics in a different color and replacing only those portions of said target region in said dirty feed that are in said chroma key color.

9. A method for personalizing a digital video composition transmitted from a server to a user over a digital computer network, said digital video composition being transmitted via a digital video data stream and said user viewing said digital video composition through viewing software, said method comprising:

determining data describing a target region in said digital video composition to be replaced;  
selecting an object to replace said target region based on information relating to the user;  
placing said data describing said target region into said digital video data stream with said digital video composition; and

integrating said selected object into said digital video composition based upon said data describing said target region to personalize said digital video composition.

10. A method as in claim 9, wherein said digital video data stream comprises a compressed digital data stream.

11. A method as in claim 9, wherein said information relating to said user comprises information related to the language of the viewing software used by the user.

12. A method as in claim 9, wherein said object to replace said target region is selected based on interaction by the user with the digital video composition.

13. A method as in claim 9, wherein said object to replace said target region is automatically selected by the server.

14. A method as in claim 9, wherein said object to replace said target region is selected by a computer interacting with the server.

15. A method as in claim 14, further comprising, controlling said computer interacting with the server by an advertising manager programmed to provide objects to the server based on information relating to said user.

16. A method as in claim 15, wherein said information relating to said user is chosen from the list of: said user's country of residence, said user's language, and data compiled from the user's previous actions.

17. A system for personalizing a digital video composition transmitted to an end user over a digital computer network, comprising:

a content owner for providing a digital video composition to be transmitted and data describing a target region in said digital video composition to be replaced;

a server for receiving said digital video composition and said data describing a target region and for transmitting such composition over a digital computer network;

an end user device for receiving said composition over said digital computer network, said end user device comprising a means for viewing said composition;

means for selecting an object to replace said target region based on information relating to the end user; and

means for integrating said selected object into said digital video composition based upon said data describing said target region and said means for selecting an object to personalize said digital video composition.

18. A system as in claim 17, wherein said digital video data stream comprises a compressed digital data stream.

19. A system as in claim 17, wherein said end user unit comprises software indicative of the end user's language and said information relating to said end user comprises information related to the language of said software.

20. A system as in claim 17, wherein said object to replace said target region is selected based on interaction by the user with the digital video composition.

21. A system as in claim 17, wherein said object to replace said target region is automatically selected by the server.

22. A system as in claim 17, further comprising an advertising manager in communication with said server and wherein said object to replace said target region is selected by said advertising manager.